FISHER RESEARCH LABS

QUALITY

Fisher detectors are renowned for their quality.
Each detector is hand crafted in the USA with pride

PERFORMANCE

The worldwide underground utility industry relics on Fisher.
Our instruments are durable, dependable, and locate deeper.

REPUTATION

Fisher produced the first patented metal detector in 1931. For over 70 years, the Fisher logo has been a mark of excellence.

2 - YEAR LIMITED WARRANTY

Fisher believes in the products we produce and backs this belief with a 2 year limited warranty.

Proof of purchase is required to make a claim under this warranty.

NOTE TO CUSTOMERS OUTSIDE THE U.S.A.

This warranty may vary in other countries, check with your distributor for details.
Warranty does not cover shipping costs.

SERVICE

Fisher is committed to providing you, our valued customer, with superior service. Each and every instrument is rigidly tested and carefully inspected during assembly and before shipment.
Should you have any questions or problems, contact:

According to FCC part 15.21 Changes or Modifications made to this device not expressly approved by the party responsible for compliance could void the users authority to operate this equipment.

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FISHER RESEARCH LABS

M-66

Valve and Box Locator
(Metal Detector)

Operating Manual

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DESCRIPTION

The Model 66 Valve and Box Locator (M-66) offers the utility industry an uncomplicated detector for finding buried metal objects. This all-metal metal detector can even search through concrete and asphalt. Please note that the M-66 is a Metal Detector which should not be a substitute for a Utility Line Tracer. Fisher Research Laboratory manufactures a complete line of equipment for Line Tracing.

M-66 SPECIFICATIONS

Subject to improvement or modification without notice.

Search Loop Configuration	Double D (direct wired)
Output Frequency of Loop	4.5kHz,
Output Indication	Speaker 16 ohm impedence
	Audio fequency 450 Hz
Power Supply	9V, each
Power Consumption	(-9V) 17 mA
	(+9V) 4mA min, 6 mA sound
	threshold, 125 mA max sound
Weight with 8" coil	4.25 lbs.
Operating Temp	-4 ^{0} to +158^{0}F (-20^0 to +70^{0}C)
	search loop immersible in water
Dimensions	Length 28" to 48" adjustable
	(71cm to 122 cm)
Shipping Weight	7 lbs.
Shipping Dimensions	34.75" x 12.75" x 5.25"
	(88.3 x 32.4 x 13.3cm)

Fisher Research Laboratory does not warrant suitability to specific use. Fisher Research Laboratory shall in no event be liable for any direct, incidental, consequential or indirect damages.

M-66 CONTROL PANEL

The M-66 Control Panel.

Meter

The meter of the M-66 serves two purposes for the operation of the machine. When used with the battery test button, the meter gives a visual indication of the battery strength. A reading between 80 – 100 is desirable. If the reading is below 80, search depth can decrease and accuracy may be in question. When searching with the M-66, the meter gives a visual indication to any change occurring in the field of detection. This is primarily due to the coil passing over a metal object, but can also occur when the ground mineral conditions change.

Battery Test

With the detector turned on, depressing the Battery Test button will indicate battery strength. This is a no-load battery test.

On/Off Ground Rejection

This control turns the M-66 on and off. It is used to electronically balance the M-66 to compensate for the natural mineral content of the soil or ground surface. When tuned properly, raising and lowering the search coil above the ground will not cause a change in the meter reading or audio tone.

Tuning Control

This control is used to adjust the detector to the threshold point. This threshold point is a point at which a very faint audio tone is heard and the meter reads 10. The Tuning Control can also be thought of as the Sensitivity control for the M-66.

M-66 SETTING UP

The M-66 comes ready to use.

Extend the lower stem of the M-66 so that the search coil rests between 6 to 12 inches in front of your feet. Your arm should be straight and relaxed with your grip held loosely. Tighten the locking knot at the bottom of the upper stem.

When the proper length is selected, the excess cable should be wound around the stem. This can be done by slightly loosening the locking knot and turning the lower stem, or by removing the search coil and winding the cable by hand. Be sure to leave a some slack in the cable.

M-66 TUNING

Proper tuning is essential for accurate locating.

1. Select an area that is free of metal near and under the search coil.
2. Turn the M-66 on by setting the Ground control to the position "5". If the M-66 is sounding, turn the Tuning control counter-clockwise until the sound vanishes. In the same respect, if you have no sound then turn the tuning control clockwise until the needle moves to about "10" and the sound is heard

NOTE: the tuning control is a multtiturn control

3. Check the batteries by pressing the Battery Test button. A reading between 80 and 100 indicates the batteries are OK.
4. Set the coil on the ground. Adjust the Tuning Control (turn knob clockwise) so there is a slight threshold sound, and the meter reads 10.
5. Lift the coil approximately 12 inches off the ground.
   Note any change of sound. If there is no change, the M-66 is balanced and ready to search. If the sounds changes:
   Sound increases – Increase the Ground setting. Repeat above procedure.
   Sound decreases – Decrease the Ground setting. Repeat above procedure.
   Repeat until the no change of sound occurs.

M-66 SEARCHING

It is a good idea to establish a methodic search pattern. Avoid swinging the M-66 like a golf club, swing the detector side to side keeping the search coil the same distance above the ground. Your sweep pattern should be a slow, half-circle motion. If you are searching for a small target, it is a good idea to overlap your sweeps.

When the detector's search coil starts to pass over a metal object, the sound will increase and the meter readings will increase. Depending upon the size and depth of the target, the target may appear (respond) to be larger then it should. To get a visual outline of the target, you need to reduce the sensitivity of the M-66. An easy way to do that is to raise the coil and pass over the target. This can help establish the edges of the target.

Another method that will give a visual outline is to reduce the Tuning Control (sensitivity) of the M-66. Move the coil away from the target. Reduce the Tuning Control (turn counter-clockwise) approximately ¼ of a turn. Sweep across the target area. The sound and meter readings will be more responsive as the search coil passes over the target. You may need to repeat this step more times if the target is at a shallow depth. Be aware that you can loose responsiveness of the target by over reducing the Tuning Control (sensitivity) of the M-66.